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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/608,724	06/26/2003	Andreas Gustafsson	PA2271US	6930

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CARR & FERRELL LLP  
2200 GENG ROAD  
PALO ALTO, CA 94303

EXAMINER
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PATEL, HETUL B

ART UNIT	PAPER NUMBER
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2186

DATE MAILED: 09/16/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/608,724

Applicant(s)

GUSTAFSSON, ANDREAS

Examiner

Hetul Patel

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 03 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 26 June 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-42 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-42 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 26 June 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>09/29/2003</u> . | 6) <input type="checkbox"/> Other: _____  |

### **DETAILED ACTION**

1. Claims 1-42 are presented for examination.
2. The IDS filed on 09/29/2003 has been received and carefully considered.

### ***Drawings***

3. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the hash table and the tree data structure must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner,

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the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

### ***Claim Objections***

4. Claims 10 and 18 are objected to because of the following informalities:

The phrase "... an Mx record ..." should read as "... a Mx record ..." in both claims.

Appropriate correction is required.

5. Claim 25 is objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim 19. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

6. Claims 1-9 and 11-42 are rejected under 35 U.S.C. 102(e) as being anticipated by Hudson Michel (USPN: 2002/0143984) hereinafter, Hudson.

As per claim 1, Hudson teaches a caching server (i.e. the web cache server) comprising an answer cache (a proximal cooperative cache) configured to access answer information through a flat data structure; a referral cache (a distal cooperative cache) configured to store referral information; and computer instructions configured to translate a domain name into DNS information by examining the answer cache and, responsive to the results of examining the answer cache, examining the referral cache (e.g. see paragraph [0006]).

As per claims 11, 13, 17, 26, 34 and 38-39, see arguments with respect to the rejection of claim 1. Claims 11, 13, 17, 26, 34 and 38-39 are also rejected based on the same rationale as the rejection of claim 1.

As per claim 2, Hudson teaches the claimed invention as described above and furthermore, Hudson teaches that the flat data structure is a hash table (e.g. see paragraph [0016] and Fig. 4A).

As per claims 25, 29 and 35, see arguments with respect to the rejection of claim 2. Claims 25, 29 and 35 are also rejected based on the same rationale as the rejection of claim 2.

As per claim 19, see arguments with respect to the rejection of claims 1 and 2. Claim 19 is also rejected based on the same rationale as the rejection of claims 1 and 2.

As per claim 3, Hudson teaches the claimed invention as described above and furthermore, Hudson teaches that the flat data structure includes pointers to a tree data structure (shown in Fig. 5).

As per claims 20-23 and 27-28, see arguments with respect to the rejection of claim 3. Claims 20-23 and 27-28 are also rejected based on the same rationale as the rejection of claim 3.

As per claim 4, Hudson teaches the claimed invention as described above and furthermore, Hudson teaches that the tree data structure, i.e. the universal resource locator forwarding table, is configured to store answer information and referral information (e.g. see paragraphs [0064]-[0066] and Figs. 5 and 7).

As per claim 5, Hudson teaches the claimed invention as described above and furthermore, Hudson teaches that the tree data structure is included in the referral cache (shown in Fig. 3).

As per claim 6, Hudson teaches the claimed invention as described above and furthermore, Hudson teaches that the caching server (i.e. the web cache server) is also an authoritative server, i.e. a server which has the desired information (e.g. see the abstract).

As per claim 7, Hudson teaches the claimed invention as described above and furthermore, Hudson teaches that the caching server (i.e. the web cache server) is also a web server (e.g. see the abstract).

As per claim 8, Hudson teaches the claimed invention as described above and furthermore, Hudson teaches that the referral cache is further configured to store the referral information in a hierarchical data structure (e.g. see Fig. 5).

As per claims 31 and 41, see arguments with respect to the rejection of claim 8. Claims 31 and 41 are also rejected based on the same rationale as the rejection of claim 8.

As per claim 9, Hudson teaches the claimed invention as described above and furthermore, Hudson teaches that the DNS information includes an IP address (e.g. see paragraph [0003]).

As per claims 12, 16, 18, 24, 32 and 42, see arguments with respect to the rejection of claim 9. Claims 12, 16, 18, 24, 32 and 42 are also rejected based on the same rationale as the rejection of claim 9.

As per claims 14 and 15, Hudson teaches a the computer network further including means for storing data in the first cache such that a time required to examine the first cache is essentially constant as a function of a number of labels comprising the domain name, i.e. the first cache is the local cache (a proximal cooperative cache) and since the number of cache entries to search in this local cache is fixed/constant all the time, a time required to examine the first/local cache is essentially constant as a function of (i) a number of labels comprising the domain name and (ii) a size of the first/local cache (e.g. see paragraph [0006]).

As per claim 30, see arguments with respect to the rejection of claims 14 and 15. Claim 30 is also rejected based on the same rationale as the rejection of claims 14 and 15.

As per claims 33 and 36, Hudson teaches a method of storing data in a cache, the method comprising: requesting DNS information; receiving data in response to the

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request; classifying the response received; and storing the data received in either a referral cache or an answer cache (i.e. in the caching server) based on the classification (e.g. see paragraph [0063]).

As per claim 37, Hudson teaches the claimed invention as described above and furthermore, Hudson teaches that the DNS information includes a numerical address, i.e. the IP address (e.g. see paragraph [0003]).

As per claim 40, see arguments with respect to the rejection of claims 1 and 33. Claim 40 is also rejected based on the same rationale as the rejection of claims 1 and 33.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hudson in view of Ramanathan et al. (USPN: 6,182,136).

As per claim 10, Hudson teaches the claimed invention as described above but does not clearly teach that the DNS information includes a Mx record. Ramanathan et al., on the other hand, teaches that by including the Mx (the mail exchange) record in the DNS information, the email messages can be easily exchanged across the hosts/web using the Mx record. Accordingly, it would have been obvious to one of  
(e.g. see Col. 6, lines 25-41).



ordinary skill in the art at the time of the current invention was made to include the Mx record in the DNS information so the email messages can be easily exchanged across the hosts/web. Therefore, it is being advantageous.

### ***Conclusion***

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hetul Patel whose telephone number is 571-272-4184. The examiner can normally be reached on M-F 8-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matt Kim can be reached on 571-272-4182. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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**MATTHEW D. ANDERSON**  
**PRIMARY EXAMINER**